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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Oyvind Hillesund

Group Art Unit: 3617

Serial No.: 09/787,723

Examiner: J. Sotelo

Filed: July 2, 2001

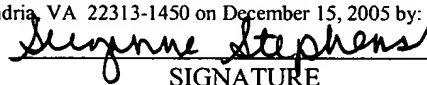
Atty. Dkt. No.: 2088.004100

For: CONTROL SYSTEM FOR POSITIONING  
MARINE SEISMIC STREAMERS

**INFORMATION DISCLOSURE STATEMENT**

**Customer No.: 28116**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**  
I hereby certify that this paper or fee is being deposited with the United States Postal Service with sufficient postage as "FIRST CLASS MAIL" addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2005 by:  
  
SIGNATURE

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed foreign patent documents and journal articles required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed within three months of the filing date of this patent application or prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R.

§ 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Director is hereby authorized to deduct said fees from Williams, Morgan & Amerson, P.C., Deposit Account No. 50-0786/2088.004100/JAP.

Applicants note that there are several foreign language references. Applicants have no English-language counterpart to those references, nor do they have a translation. Applicants therefore offer the following descriptions of those references:

**NO992701:** From the Abstract of corresponding WO9828636, this reference is cited for teaching a control device (or “bird”) for controlling the position of a marine seismic streamer is provided with an elongate, partly flexible, body which is designed to be connected electrically and mechanically in series with the streamer. In its preferred form, the bird has two opposed wings, which are independently controllable in order to control the streamers lateral position, as well as its depth.

**DE69702673:** From the Abstract of corresponding WO9828636, this reference is cited for teaching a control device (or “bird”) for controlling the position of a marine seismic streamer is provided with an elongate, partly flexible, body which is designed to be connected electrically and mechanically in series with the streamer. In its preferred form, the bird has two opposed wings, which are independently controllable in order to control the streamers lateral position, as well as its depth.

**EP0319716:** From the Abstract, this reference is cited for teaching a method for obtaining seismic data of an area, especially a sea area, in which objects such as drilling platforms prevent acquisition with the aid of conventional seismology, e.g. using towed

streamers. The entire area is firstly subdivided into subareas, in which receiver chains are arranged between two objects in each case. A sound generator is then moved relative to the receiver chain along a grid, whose grid points correspond to the exit points of the generator. The fully acquired subareas are subsequently combined by a grid transformation to produce a uniform 3D data volume. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

**EP0321705:** From the Abstract, the reference is cited for teaching a method for obtaining seismic data of an area having a central structure, e.g. an island, with the aid of a streamer towed by a ship, in which the ship describes a spiral course (2) about the central structure (1) in order to obtain the data. The spiral is preferably an Archimedes spiral with equidistant spacing of the individual spiral line sections. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

**EP0525391:** From the Abstract, this reference is cited for teaching, in the acquisition of marine seismic data using towed streamers, only a relatively narrow underground strip is covered. Detecting the underground without gaps therefore requires sailing over many closely neighboring profile lines. In the measuring arrangement according to the invention and in the method, as wide as possible an underground strip is detected by means of a single sail along a profile by providing that at least one streamer is held at an acute offset angle ( $\alpha$ ) between its longitudinal axis and the bearing of the ship and is moved through the water essentially parallel to the bearing, the offset angle ( $\alpha$ ) being controlled from the ship in a wide angular range in order to evade obstacles. The technique is suitable for the rapid and cost-effective 3-dimensional coverage of the marine seismology of relatively large measurement areas, in

particular in coastal areas and around drilling platforms. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

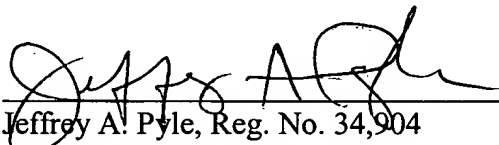
Applicant respectfully requests that the listed documents be made of record in the present case.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.

Date: December 15, 2005

By:

A handwritten signature in black ink, appearing to read "Jeffrey A. Pyle", is written over a horizontal line.

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ATTORNEY FOR APPLICANT(S)

Form PTO-1449 (modified)

Atty. Docket No.: 2088.004100

Application No.:

09/787,723

List of Patents and Publications for  
Applicant's

Applicant(s): Hillesund

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date: 7/2/01

Group: 3617

U.S. Patent Documents

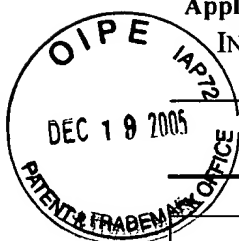
Foreign Patent Documents

Other Art

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## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	3560912	2/2/71	Spink, et al	340	3	2/3/69
	A2	3605674	9/20/71	Weese	114	235b	9/8/69
	A3	3774570	11/27/73	Pearson	114	235b	1/25/72
	A4	3896756	1/29/75	Pearson, et al	114	235b	2/2/71
	A5	3943483	3/9/76	Strange	340	7PC	5/8/74
	A6	4222340	9/16/80	Cole	114	245	11/1/78
	A7	4290124	9/15/81	Cole	367	18	11/1/78
	A8	4404664	9/13/83	Zachariadis	367	19	12/31/80
	A9	4463701	8/7/84	Pickett, et al	114	245	2/28/80
	A10	4676183	6/30/87	Conboy	114	245	4/16/86
	A11	4709355	11/24/87	Woods, et al	367	16	6/18/84
	A12	4711194	12/8/87	Fowler	114	245	1/11/85
	A13	4729333	3/8/88	Kirby, et al	114	244	7/9/86
	A14	4745583	5/17/88	Motal	367	18	12/18/86
	A15	4767183	8/30/88	Martin	350	96.23	5/12/86
	A16	4843996	7/4/89	Darche	114	245	5/6/88
	A17	4890568	1/2/90	Dolengowski	114	246	8/28/88
	A18	4890569	1/2/90	Givens	114	349	5/31/88
	A19	4912684	3/27/90	Fowler	367	76	2/29/88
	A20	4992990	2/12/91	Langeland	367	19	6/6/89
	A21	5042413	8/27/91	Benoit	114	244	3/29/90
	A22	5402745	4/4/95	Wood	114	244	5/2/94
	A23	5443027	8/22/95	Owsley, et al	114	244	12/20/93
	A24	5507243	4/16/96	Williams, et al	114	245	2/23/94

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)		Atty. Docket No.: 2088.004100	Application No.: 09/787,723
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant(s): Hillesund	
		Filing Date: 7/2/01	Group: 3617
U.S. Patent Documents <i>See Page 1</i>	Foreign Patent Documents <i>See Page 1</i>	Other Art <i>See Page 1</i>	

U.S. Patent Documents							
Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A25	5529011	6/25/96	Williams, Jr.	114	245	2/23/95
	A26	5619474	4/8/97	Kuche	367	17	5/10/95
	A27	5642330	6/24/97	Santopietro	367	131	5/2/94
	A28	5790472	8/4/98	Workman, et al	367	19	12/20/96
	A29	6011752	1/4/00	Ambs, et al	367	17	8/3/98
	A30	6011753	1/4/00	Chien	367	21	3/19/98
	A31	6016286	1/18/00	Olivier, et al	367	17	6/10/98
	A32	6144342	11/7/00	Bertheas, et al	343	709	2/11/97
	A33	6459653	10/1/02	Kuche	367	17	6/18/98
	A34	6525992	2/25/03	Olivier, et al	367	17	4/18/00
	A35	6549653	4/15/03	Osawa, et al	382	162	8/14/98
	A36						

Foreign Patent Documents							
Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1	AU199853305	12/19/97	AU			Yes
	B2	CA2270719	12/19/97	CA			Yes
	B3	DE69702673T	4/5/01	DE			No
	B4	EP0193215	1/10/86	EP			Yes
	B5	EP0319716	6/14/89	EP			No
	B6	EP0321705	6/28/89	EP			No
	B7	EP0390987	12/8/93	EP			Yes
	B8	EP0525391	2/3/93	EP			No
	B9	EP0581441	8/27/97	EP			Yes

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Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B10	EP0613025	9/2/98	EP			Yes
	B11	EP0909701	1/8/03	EP			Yes
	B12	GB2093610	9/2/82	GB			Yes
	B13	GB2122562	1/18/84	GB			Yes
	B14	GB2331971	6/9/99	GB			Yes
	B15	GB2342081	4/5/00	GB			Yes
	B16	NO992701	6/3/99	NO			No
	B17	WO95/31735	11/23/95	PCT			Yes
	B18	WO96/21163	7/11/96	PCT			Yes
	B19	WO97/11395	3/27/97	PCT			Yes
	B20	WO97/30361	8/21/97	PCT			Yes
	B21	WO97/45006	12/4/97	PCT			Yes
	B22	WO98/28636	7/2/98	PCT			Yes
	B23	WO99/04293	1/28/99	PCT			Yes
	B24						

### Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C1	
	C2	
	C3	
	C4	
	C5	

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